

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... SOUTHERN HIGH PLAINS, LEA COUNTY, Projected 2011.
FARM SIZE..... 480.00 ACRES
IRRIGATION TYPE..... SPRINKLER
NUMBER OF CROPS..... 3

VERSION 1.0

COPYRIGHT (C) 1984 by NEW MEXICO STATE UNIVERSITY BOARD OF REGENTS

New Mexico State University is an equal opportunity employer. All programs are available to everyone regardless of race, color, religion, sex, age, handicap, or national origin. New Mexico State University and the U.S. Department of Agriculture Cooperating.

* YOU MAY ENTER DATA IN ANY INPUT TABLE WITH
HIGHLIGHTED CELLS OR YOU MAY STRIKE
[ENTER] AND RETURN TO THE MENU

** BE SURE PRINTER IS ON AND PAPER IS ALIGNED
BEFORE YOU PRINT

TABLE 1. Acreage Summary, Lea County,
Projected 2011.

BUDGET AREA.....	SOUTHERN HIGH PLAINS, LEA COUNTY
FARM SIZE.....	480 ACRES
IRRIGATION TYPE.....	SPRINKLER
NUMBER OF CROPS....	3

ACREAGE SUMMARY:	WATER USE		
	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	21.00 *	6	126
ALFALFA	125.00	42	5,250
WHEAT	106.25	20	2,125
ARP	0.00		
FLEX IN COTTON	18.75	20	375
COTTON	106.25	20	2,125
ARP	0.00		
FLEX IN COTTON	18.75	20	375
IDLE, FALLOW, ROADS	105.00		
TOTAL	480.00		10,376
ACRE FEET PER ACRE OF WATER RIGHTS			1.80

* DOUBLE-CROPPED

TABLE 2. Basic cost information for Lea County,
Projected 2011.

Item			
Labor Wage Rate:			
Equipment operators	\$/hour		\$8.55
General & Irrigators	\$/hour		\$7.25
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)	\$/pound		\$0.71
Phosphate (P205)	\$/pound		\$0.65
Seed:			
Alfalfa	\$/pound		\$3.30
Wheat	\$/pound		\$0.32
Cotton	\$/pound		\$2.15
Electricity (Lea Co Elec Coop)	cents/KwHr		6.12
Natural gas (Gas Co NM)	\$/MCF		\$3.75
Service Charge	\$/month		\$10.00
Diesel fuel	\$/gallon		\$2.95
Gasoline	\$/gallon		\$3.05
LP Gas	\$/gallon		\$2.60
Employee Liability Insurance	\$/ \$1,000 wages		\$20.00
Employee Benefits	percent/wages		18.00%
Labor Downtime	percent		25.00%
Financial Rates:			
Operating Capital Interest Rate	percent		7.00%
Land Interest Rate	percent		6.00%
Equipment Interest Rate	percent		7.00%
Real Interest Rate	percent		3.00%
Land Taxes	\$90.00 /acre (full value)		\$0.75
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value)	\$25.13 \$28.97
Supervision Factors			
Field Crop-Irrigation	\$/labor hour		\$1.00
Field Crop-Equipment & General	\$/labor hour		\$0.50
Management Rate	percent		7.00%

TABLE 3. Overhead cost information for Lea County,
Projected 2011.

Item			
Electricity (Domestic & Shop)		\$121.00 per month	\$1,452
Telephone		\$75.00 per month	\$900
Accounting & Legal			\$1,718
Misc. Supplies & Hand Tools			\$2,517
Pickup and Auto			
miles	24,926	@ \$0.500 per mile	\$12,463
Insurance			
- general liability (non-employee)			\$1,857
- fire/theft			\$1,470
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$1,410
Dues, fees, publications			\$424
Farmstead Equipment			\$182
Total			\$30,402
Total per planted acre			\$81.07

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 480 acre farm with above average management, Lea County, Projected 2011.
Planting dates: August 15 - September 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$3.30	30 LBS	\$99.00					\$99.00
NITROGEN (N)	\$0.71	55 LBS	\$39.05					\$39.05
PHOSPHATE (P205)	\$0.65	140 LBS	\$91.00					\$91.00
PUMP WATER		6 AC. IN.						
SUBTOTAL			\$229.05					\$229.05
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	155 HP	0.48 HR		\$4.10	\$12.70	\$4.97	\$9.76	\$31.53
DISC (2X)	155 HP	0.28 HR		\$2.39	\$7.41	\$2.55	\$5.26	\$17.61
FLOAT	155 HP	0.19 HR		\$1.62	\$5.03	\$1.03	\$5.20	\$12.88
FERT SPREADER	126 HP	0.05 HR		\$0.43	\$1.22	\$0.20	\$0.42	\$2.27
DRILL	126 HP	0.18 HR		\$1.54	\$4.38	\$0.90	\$5.05	\$11.87
IRRIGATE (3X)		0.30 HR		\$2.18	\$9.07	\$0.72	\$5.38	\$17.35
SUBTOTAL		1.48 HR		\$12.26	\$39.80	\$10.37	\$31.08	\$93.50
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.30 HR		\$2.52				\$2.52
EMPLOYEE BENEFITS				\$2.21				\$2.21
INSURANCE			\$0.25				\$0.25	
SUPERVISION AND MANAGEMENT				\$23.47				\$23.47
SUBTOTAL		0.30 HR	\$0.25	\$28.20				\$28.44
<u>TOTAL OPERATING EXPENSES</u>		1.78 HR	\$229.30	\$40.46	\$39.80	\$10.37	\$31.08	\$351.00

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 480 acre farm with above average management, Lea County, Projected 2011.

Harvest dates: May 20 - October 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
ALFALFA HAY	\$165.00	6.00 TONS (STACKED)	\$990.00
TOTAL			\$990.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
PHOSPHATE (P2O5)	\$0.65	90 LBS	\$58.50		\$58.50
INSECTICIDE (CUSTOM)	\$14.08	1 ACRE	\$14.08		\$14.08
HERBICIDE	\$12.80	1 ACRE	\$12.80		\$12.80
WIRE	\$0.37	51 LBS	\$19.10		\$19.10
ESTABLISHMENT: Principal		6 YEARS		\$58.50	\$58.50
: Interest				\$13.80	\$13.80
PUMP WATER*		42 AC. IN.			
SUBTOTAL			\$104.48	\$72.30	\$176.78

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERT SPREADER	126 HP	0.05 HR		\$0.43	\$1.22	\$0.20	\$0.42	\$2.27
IRRIGATE		1.40 HR		\$10.15	\$63.50	\$5.07	\$37.64	\$116.36
SUBTOTAL		1.45 HR		\$10.58	\$64.72	\$5.27	\$38.06	\$118.63

HARVEST OPERATIONS

SWATHER (5X)	16 FT SP	0.55 HR		\$4.70	\$6.07	\$0.80	\$31.39	\$42.96
BALER & ACCUM (5X)	155 HP	1.25 HR		\$10.69	\$33.06	\$6.93	\$19.80	\$70.48
FRONT END LOADER (5X)	126 HP	1.25 HR		\$10.69	\$30.42	\$8.92	\$12.83	\$62.86
SUBTOTAL		3.05 HR		\$26.08	\$69.56	\$16.64	\$64.03	\$176.30

OVERHEAD EXPENSES

DOWNTIME		0.78 HR		\$6.63				\$6.63
EMPLOYEE BENEFITS				\$6.60				\$6.60
INSURANCE			\$0.73					\$0.73
LAND TAXES							\$0.75	\$0.75
SUPERVISION AND MANAGEMENT				\$72.25				\$72.25
OTHER EXPENSES			\$81.07					\$81.07
SUBTOTAL		0.78 HR	\$81.81	\$85.47			\$0.75	\$168.03

TOTAL OPERATING EXPENSES 5.28 HR \$186.29 \$122.13 \$134.28 \$21.91 \$175.14 \$639.74

NET OPERATING PROFIT \$350.26

INTEREST ON OPERATING CAPITAL (\$76.92 @ 7.00%) \$5.38
 INTEREST ON EQUIPMENT INVESTMENT \$21.09

RETURN TO LAND AND RISK \$323.78

* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$990.00	
VARIABLE OPERATING EXPENSES	\$342.47		
RETURN OVER VARIABLE EXPENSES		\$647.53	(GROSS MARGIN)
FIXED EXPENSES	\$175.14		
NET FARM INCOME		\$472.39	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$122.13		
NET OPERATING PROFIT		\$350.26	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$26.47		
RETURN TO LAND AND RISK		\$323.78	

TABLE 11.. Wheat, sprinkler-irrigated, budgeted per acre costs and returns in Catron County New Mexico

Planting dates: August 15 - October 30		Harvest dates: July 1- July 15							
ITEM	PRICE	YIELD	BASE					TOTAL	
GROSS RETURNS									
WHEAT	\$5.25	40.00 BUSHELS						\$210.00	
DIRECT PAYMENT	\$0.00	40.00 BUSHELS	0.85					\$0.00	
COUNTER CYCLICAL PAYMENT	\$0.00							\$0.00	
GRAZING	\$50.00	1.00 ACRE						\$50.00	
TOTAL								\$260.00	
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
SEED	0.32	90 LBS	\$28.80						\$28.80
PHOSPHATE (P205)	0.65	70 LBS	\$45.50						\$45.50
ANHYDROUS AMMONIA (NH3)	0.15	200 LBS	\$30.00						\$30.00
PUMP WATER*		20 ACRE IN.							
CROP INSURANCE	0.47		\$0.47						\$0.47
SUBTOTAL			\$104.77						\$104.77
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
CHISEL	155 HP	0.15 HR		\$1.28	\$3.97	\$1.06	\$3.78	\$10.09	
DISC	155 HP	0.14 HR		\$1.20	\$3.70	\$1.27	\$2.63	\$8.80	
ANNHYDROUS APPL	155 HP	0.17 HR		\$1.45	\$4.50	\$1.04	\$4.24	\$11.23	
FERT SPREADER	126 HP	0.05 HR		\$0.43	\$1.22	\$0.20	\$0.42	\$2.27	
DISC	155 HP	0.14 HR		\$1.20	\$3.70	\$1.27	\$2.63	\$8.80	
DRILL	126 HP	0.18 HR		\$1.54	\$4.38	\$0.90	\$5.05	\$11.87	
IRRIGATE (12X)		1.20 HR		\$8.70	\$30.24	\$2.41	\$17.92	\$59.28	
SUBTOTAL		2.03 HR		\$15.80	\$51.71	\$8.16	\$36.67	\$112.34	
HARVEST OPERATIONS									
COMBINE (CUSTOM)			\$11.15					\$11.15	
HAUL (CUSTOM)			\$6.40					\$6.40	
SUBTOTAL			\$17.55					\$17.55	
OVERHEAD EXPENSES									
DOWNTIME		0.21 HR		\$1.77				\$1.77	
EMPLOYEE BENEFITS				\$2.84				\$2.84	
INSURANCE			\$0.32					\$0.32	
LAND TAXES							\$0.75	\$0.75	
SUPERVISION AND MANAGEMENT				\$19.82				\$19.82	
OTHER EXPENSES			\$81.07					\$81.07	
SUBTOTAL		0.21 HR	\$81.39	\$24.43			\$0.75	\$106.57	
TOTAL OPERATING EXPENSES		2.24 HR	\$203.71	\$40.23	\$51.71	\$8.16	\$37.43	\$341.23	
NET OPERATING PROFIT								(\$81.23)	
INTEREST ON OPERATING CAPITAL		(\$68.81 @	7.00%)				\$4.82	
INTEREST ON EQUIPMENT INVESTMENT								\$5.71	
RETURN TO LAND AND RISK								(\$91.76)	

* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$260.00	
VARIABLE OPERATING EXPENSES	\$263.58		
RETURN OVER VARIABLE EXPENSES		(\$3.58)	(GROSS MARGIN)
FIXED EXPENSES	\$37.43		
NET FARM INCOME		(\$41.00)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$40.23		
NET OPERATING PROFIT		(\$81.23)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$10.52		
RETURN TO LAND AND RISK		(\$91.76)	

TABLE 9. Upland cotton (stripper), sprinkler-irrigated, budgeted per acre costs and returns for a 480 acre farm with above average management, Lea County, Projected 2011.
 Planting dates: May 1 - May 25
 Harvest dates: November 1 - December 15

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
LINT	\$0.81	425.00 LBS		\$344.25
SEED	\$0.07	680.00 LBS		\$47.60
DIRECT PAYMENT	\$0.0000	425.00 LBS	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.1373	675.00 LBS	0.85	\$78.78
TOTAL				\$470.63

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$2.15	20 LBS	\$43.00		\$43.00
NITROGEN (N)	\$0.71	32 LBS	\$22.72		\$22.72
PHOSPHATE (P2O5)	\$0.65	40 LBS	\$26.00		\$26.00
INSECTICIDE	\$11.20	1 X/ACRE	\$11.20		\$11.20
HERBICIDE	\$8.00	1 X/ACRE	\$8.00		\$8.00
INSECTICIDE (CUSTOM)	\$11.07	1 X/ACRE	\$11.07		\$11.07
CROP INSURANCE			\$0.35		\$0.35
PUMP WATER*		20 ACRE IN.			
SUBTOTAL			\$122.34		\$122.34

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	155 HP	0.48 HR		\$4.10	\$12.70	\$4.97	\$9.76	\$31.53
DISC	155 HP	0.14 HR		\$1.20	\$3.70	\$1.27	\$2.63	\$8.80
FERT SPREADER	126 HP	0.05 HR		\$0.43	\$1.22	\$0.20	\$0.42	\$2.27
DISC	155 HP	0.14 HR		\$1.20	\$3.70	\$1.27	\$2.63	\$8.80
PRE-IRRIGATE		0.10 HR		\$0.73	\$3.78	\$0.30	\$2.24	\$7.05
PLANTER	155 HP	0.17 HR		\$1.45	\$4.50	\$1.26	\$8.40	\$15.61
CULTIVATOR (3X)	126 HP	0.39 HR		\$3.33	\$9.49	\$3.00	\$6.27	\$22.10
HOE (CUSTOM 2X)			\$20.00					\$20.00
IRRIGATE (7X)		0.70 HR		\$5.08	\$26.46	\$2.11	\$15.68	\$49.33
SUBTOTAL		2.17 HR	\$20.00	\$17.51	\$65.55	\$14.39	\$48.04	\$165.49

HARVEST OPERATIONS								
COTTON STRIPPER	126 HP	0.62 HR		\$5.30	\$15.09	\$3.03	\$10.94	\$34.36
MODULE BUILDER	155 HP	0.62 HR		\$5.30	\$16.40	\$7.95	\$16.05	\$45.71
GIN COTTON (CUSTOM)			\$79.99					\$79.99
SUBTOTAL		1.24 HR	\$79.99	\$10.60	\$31.49	\$10.98	\$26.99	\$160.05

POSTHARVEST OPERATIONS								
SHREDDER	155 HP	0.14 HR		\$1.20	\$3.70	\$0.81	\$4.31	\$10.02

OVERHEAD EXPENSES								
DOWNTIME		0.68 HR		\$5.77				\$5.77
EMPLOYEE BENEFITS				\$5.28				\$5.28
INSURANCE			\$0.59					\$0.59
LAND TAXES						\$0.75		\$0.75
SUPERVISION AND MANAGEMENT				\$35.09				\$35.09
OTHER EXPENSES			\$81.07					\$81.07
SUBTOTAL		0.68 HR	\$81.66	\$46.14			\$0.75	\$128.55

TOTAL OPERATING EXPENSES		4.23 HR	\$303.98	\$75.45	\$100.74	\$26.19	\$80.09	\$586.45
---------------------------------	--	----------------	-----------------	----------------	-----------------	----------------	----------------	-----------------

NET OPERATING PROFIT								(\$115.83)
-----------------------------	--	--	--	--	--	--	--	-------------------

INTEREST ON OPERATING CAPITAL		(\$92.49 @	7.00%)				\$6.47
INTEREST ON EQUIPMENT INVESTMENT								\$15.46

RETURN TO LAND AND RISK								(\$137.77)
--------------------------------	--	--	--	--	--	--	--	-------------------

* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$470.63	
VARIABLE OPERATING EXPENSES	\$430.91		
RETURN OVER VARIABLE EXPENSES	\$39.72	(GROSS MARGIN)	
FIXED EXPENSES	\$80.09		
NET FARM INCOME	(\$40.37)	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$75.45		
NET OPERATING PROFIT	(\$115.83)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$21.94		
RETURN TO LAND AND RISK		(\$137.77)	

TABLE 10. Summary of per acre costs and returns for a 480 acre farm with above average management, Lea County, Projected 2011.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	WHEAT	STRIPPER COTTON
		TONS	BU	LBS
PRIMARY YIELD		6.00	40.00	425.00
PRIMARY PRICE		\$165.00	\$5.25	\$0.81
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$78.78
SECOND INCOME		\$0.00	\$50.00	\$47.60
GROSS RETURN		\$990.00	\$260.00	\$470.63
CASH OPERATING EXPENSES				
SEED	\$99.00		\$28.80	\$43.00
FERTILIZER	\$130.05	\$58.50	\$75.50	\$48.72
CHEMICALS		\$26.88		\$30.27
CROP INSURANCE			\$0.47	\$0.35
OTHER PURCHASED INPUTS		\$19.10		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$30.73	\$70.77	\$21.47	\$70.50
FUEL-IRRIGATION	\$9.07	\$63.50	\$30.24	\$30.24
REPAIRS	\$10.37	\$21.91	\$8.16	\$26.19
CUSTOM CHARGES			\$17.55	\$99.99
LAND TAXES		\$0.75	\$0.75	\$0.75
OTHER EXPENSES	\$0.25	\$81.81	\$81.39	\$81.66
TOTAL CASH EXPENSES	\$279.46	\$343.22	\$264.33	\$431.66
RETURN OVER CASH EXPENSES	(\$279.46)	\$646.78	(\$4.33)	\$38.97
FIXED EXPENSES	\$31.08	\$174.39	\$36.67	\$79.34
TOTAL EXPENSES	\$310.53	\$517.61	\$301.00	\$511.00
RETURNS TO CAPITAL, LABOR, LAND & RISK	(\$310.53)	\$472.39	(\$41.00)	(\$40.37)
LABOR AND MANAGEMENT COSTS	\$40.46	\$122.13	\$40.23	\$75.45
RETURNS TO CAPITAL, LAND & RISK	(\$351.00)	\$350.26	(\$81.23)	(\$115.83)
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$5.38	\$4.82	\$6.47
INTEREST ON EQUIPMENT INVESTMENT		\$21.09	\$5.71	\$15.46
TOTAL CAPITAL COSTS	\$0.00	\$26.47	\$10.52	\$21.94
RETURN TO LAND AND RISK	(\$351.00)	\$323.78	(\$91.76)	(\$137.77)

TABLE 11. Whole farm summary, Lea County,
Projected 2011.

GROSS RETURNS		
ALFALFA HAY	125.00 ACRES	
CROP		\$123,750
WHEAT	106.25 ACRES	
CROP		\$22,313
GRAZING		\$5,313
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
COTTON	143.75 ACRES	
LINT		\$49,486
SEED		\$6,843
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$11,324
GROSS RETURN		<u>\$219,027</u>
CASH OPERATING EXPENSES		
SEED		\$11,320
FERTILIZER		\$25,069
CHEMICALS		\$7,712
CROP INSURANCE		\$100
OTHER PURCHASED INPUTS		\$2,388
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$21,907
FUEL-IRRIGATION		\$15,688
REPAIRS		\$7,587
CUSTOM CHARGES		\$16,238
LAND TAXES		\$283
OTHER EXPENSES		\$30,617
TOTAL CASH EXPENSES		<u>\$138,908</u>
RETURN OVER CASH EXPENSES		\$80,120
FIXED EXPENSES		\$30,440
TOTAL EXPENSES		\$169,348
NET FARM INCOME		\$49,679
LABOR AND MANAGEMENT COSTS		\$31,237
NET OPERATING PROFIT		\$18,443
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$2,116
INTEREST ON EQUIPMENT INVESTMENT		\$5,465
TOTAL CAPITAL COSTS		<u>\$7,581</u>
RETURN TO LAND AND RISK		<u>\$10,862</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	\$3,662	3.96%
\$700 /ACRE	\$782	3.28%
\$900 /ACRE	(\$2,098)	2.80%
\$1,100 /ACRE	(\$4,978)	2.45%
\$1,300 /ACRE	(\$7,858)	2.17%
\$1,500 /ACRE	(\$10,738)	1.95%

* RETURN TO LAND AND RISK MINUS (INTEREST RATE TIMES LAND VALUE TIMES ACREAGE)

** NET OPERATING PROFIT DIVIDED BY (MACHINERY AND EQUIPMENT VALUE PLUS LAND VALUE)